

COLORADO DIVISION OF RECLAMATION, MINING AND SAFETY COAL PROGRAM INSPECTION REPORT



PERMIT INFORMATION

Permit Number: C-1996-083 Mine Name: Bowie No. 2 Mine Operator: Bowie Resources, LLC Operator Address: Mr William A Bear P.O. Box 483 Paonia, CO 81428	County: Delta Operation Type: Underground Permit Status: Active Ownership: Federal and Forest Operator Representative Present: Bill Bear			
Operator Representative Signature: (Field Issuance Only)				

INSPECTION INFORMATION

Inspection Start Date: August 21, Inspection Start Time: 08:30 Inspection End Date: August 22, Inspection End Time: 08:20			Inspection Type: Coal Complete Inspection Inspection Reason: Normal I&E Program Weather: Clear	
Joint Inspection Agency:		Joint	Joint Inspection Contacts:	
None				
Post Inspection Agency:		Post Inspection Contacts:		
None				
Inspector(s):	Inspector's Signature:		nature: Signature Date:	
Susan L. Burgmaier	Susanlburgmani 08/23/2013			

Inspection Topic Summary

NOTE: Y=Inspected N=Not Inspected R=Comments Noted V=Violation Issued NA=Not Applicable

R - Air Resource Protection

R - Availability of Records

Y - Backfill & Grading

R - Excess Spoil and Dev. Waste

Y - Explosives

Y - Fish & Wildlife

R - Hydrologic Balance

Y - Gen. Compliance With Mine Plan

NA - Other

R - Processing Waste

R - Roads

Y - Reclamation Success

R - Revegetation

Y - Subsidence

Y - Slides and Other Damage

Y - Support Facilities On-site

R - Signs and Markers

NA - Support Facilities Not On-site

NA - Special Categories Of Mining

Y - Topsoil

COMMENTS

This was a complete inspection of the Bowie No. 2 Mine conducted by Susan Burgmaier of DRMS. Bill Bear of Bowie Resources, LLC, and Tamme Bishop of JE Stover & Associates were present during the inspection. The ground inspection concluded at 2:30 pm on Wednesday, and records were inspected the following morning. Weather conditions at the time of the inspection were hot and dry; ground conditions were dry. The mine area has had frequent heavy rain events recently, most notably a reported 2.2" (recorded at the mine office) on July 28th, that resulted in extensive runoff sitewide. This particular event was about 5 hours in duration; the 25 yr-24 hr and 100 yr-24 hr events for the site are 2.1" and 2.6", respectively.

The mine is currently working in the B-Seam, in Panel 14. Gob placement is occurring in the expansion area between Gob Pile #2 and Gob Pile #4.

AIR RESOURCE PROTECTION – Rule 4.17:

No fugitive dust was observed anywhere on site. Roads surfaces and gob material were sufficiently damp to keep dust down. During the inspection, the operator indicated that BRL had received "enforcement discretion" from CDPHE for Gob Pile #3, so that placement of gob would be allowed prior to final approval of the construction (emissions) permit.

AVAILABILITY OF RECORDS – Rule 5.02.4(1):

Records were inspected at the mine office, as detailed in the last page of this report. All required records were available and current, with the exception of the Annual Impoundment Inspections. The report exists, and was received by the Division on April 17, 2013, but wasn't located in the records binder during the inspection. The document needs to be updated in the inspection records binder.

HYDROLOGIC BALANCE - Rule 4.05 □ Drainage Control 4.05.1, 4.05.2, 4.05.3; Siltation Structures 4.05.5, 4.05.6; Discharge Structures 4.05.7, 4.05.10; Diversions 4.05.4; Effluent Limits 4.05.2; Ground Water Monitoring 4.05.13; Surface Water Monitoring 4.05.13; Drainage – Acid and Toxic Materials 4.05.8; Impoundments 4.05.6, 4.05.9; Stream Buffer Zones 4.05.18:

Ponds B, C, D, F, and J all held water; none were being discharged. Pond K was dry. It was evident at Ponds B, C, D, F, and J that water had discharged through the emergency spillways as a result of the July 28, 2013 storm. Tamme Bishop, consultant for the operator, had previously reported the discharges from these ponds as observed during her July 29, 2013 site visit report. A considerable amount of cleanup work had occurred in the pond spillways and inlets. Remaining pond maintenance includes the cleaning and reshaping of the inlets of Ponds B, C, and D, and sediment removal in Ponds B, C, D, and F. The inlet of Pond F, Ditch F4, and the Pond B spillway had been entirely reconstructed.

Alternative sediment control measures were inspected at several small area exemptions, and found to be in place at all required locations. Many of the areas were in need of repair, primarily as a result of recent heavy rains: Terror Creek Vent Shaft - berm had overtopped in the central part of the pad, and the silt fence was nearing capacity.

West Fork of Terror Creek - wattles to intercept road runoff had been replaced, but needed to be keyed in.

GVB B12C - cattle had destroyed most of the straw wattles.

GVB B14A - the berm needed to be built up (possibly subsided).

GVB roads - several of the water bar runouts needed the wattles keyed in.

Pump House - straw bales on the south side and wattles on the west side need to be replaced.

Two new drill pads had been constructed (B14B and B14C). Straw wattles and slash piles had been installed for sediment control, and were in good condition.

PROCESSING WASTE/COAL MINE WASTE PILES – Rule 4.10 and 4.11 □ Drainage Control; Surface Stabilization; Placement:

Work continues on Gob Pile #2 in an effort to abate NOV CV2013004. A considerable amount of progress has been made, but the operator indicated that another abatement deadline extension will be requested. The recent rain events have required equipment operators to focus on ditch and pond maintenance, decreasing the amount of operator hours available for spreading and compacting waste material. The lower portion of the expansion area, where end dumping over the winter had resulted in steep slopes and impounded water, had been reworked and was near final grade. The northern portion of the east end of the pile still had end dumped material, but had been worked down to about an acre in size.

No standing water was observed anywhere on the gob piles, and it appeared that the ditches were graded for positive drainage.

The operator had placed additional gob at the top of Gob Pile #4, to provide positive drainage off of the crest of the pile.

Cover material had been hauled over to Gob Pile #4, but hadn't been spread to final thickness yet. The cover material balance at the site was discussed with the operator and consultant. The latest calculations, assuming the availability of about 200,000 cy of additional material to be excavated at Gob Pile #3, indicate that there is enough material available to cover all three active piles with the required 4' of material. Detailed calculations are being reviewed under Technical Revision No. 77.

Gob Pile #3 was inactive. Survey stakes had been placed along the diversion ditch, in preparation for final grading and certification of the ditch construction. Additional material will be excavated from the pile area prior to placement of waste in this area; the operator indicated that a technical revision to address the additional excavation and material balance would be forthcoming.

ROADS – Rule $4.03 \square$ Construction $4.03.1(3)/4.03.2(3) \square$ Drainage $4.03.1(4)/4.03.2(4) \square$ Surfacing and Maintenance 4.03.1(5) and (6)/4.03.2(5) and $(6)\square$ Reclamation 4.03.1(7)/4.03.2(7):

Roads were in good condition; ditches and culverts were functional. A few ditch segments still needed regrading after being damaged by recent storms, and the operator indicated that work is progressing systematically sitewide.

REVEGETATION – Rule 4.15 ☐ Vegetative Cover; Timing:

The Hubbard Creek vent shaft was reseeded and mulched this spring. Recently germinated wheatgrasses and cicer milkvetch were observed, and some shrubs have encroached from the upslope area. The area is still fairly weedy, but the interseeding has increased the desirable species.

SIGNS AND MARKERS - Rule 4.02:

Mine identification signs were observed at all public road access points on the Bowie Road and Hubbard Creek Road. Topsoil identification signs were posted as required, and disturbance boundary markers were visible throughout the permit area.

ENFORCEMENT ACTIONS/COMPLIANCE

Infraction Number: CV2013004

Inspection Date: May 9, 2013 Date Issued: May 16, 2013 Primary Topic: Processing Waste Secondary Topic: Hydrologic Balance

Tertiary Topic:

Description: Failure to construct Gob Pile #2 in a controlled manner to ensure stability of

the fill; failure to control surface water runoff on Gob Pile #2 and Gob Pile #4.

Abatement #: 1

Abatement Due Date: 6/28/2013

Abatement Due Extended Date: 8/30/2013

Abatement Description: Place and compact all existing end-dumped material on Gob Pile

#2 in accordance with the Rules and approved permit application package.

Abatement #: 2

Abatement Due Date: 6/28/2013 Abatement Due Extended Date: NA

Abatement Description: Remove coverfill material from ditches D-F5 and D-F6 and repair or reconstruct all lateral ditches on Gob Piles 2 and 4 to ensure positive drainage as designed in the approved permit application package.

Abated June 25, 2013.

Abatement #: 3

Abatement Due Date: 6/30/2013

Abatement Due Extended Date: 7/31/2013

Abatement Description: Conduct quarterly inspections of Gob Pile #2 in accordance with

all of the requirements of Rule 4.10.2, beginning with the second quarter of 2013.

Abated July 15, 2013.

PHOTOGRAPHS



Photo 1 GVB – B12C drill pad, straw wattles have been damaged by cattle



Photo 2 GVB - B14B outslope



Photo 3
Topsoil stockpile and
excavated bench at GVB –
B14C



Photo 4
Outslope of GVB – B14A, where berm was low

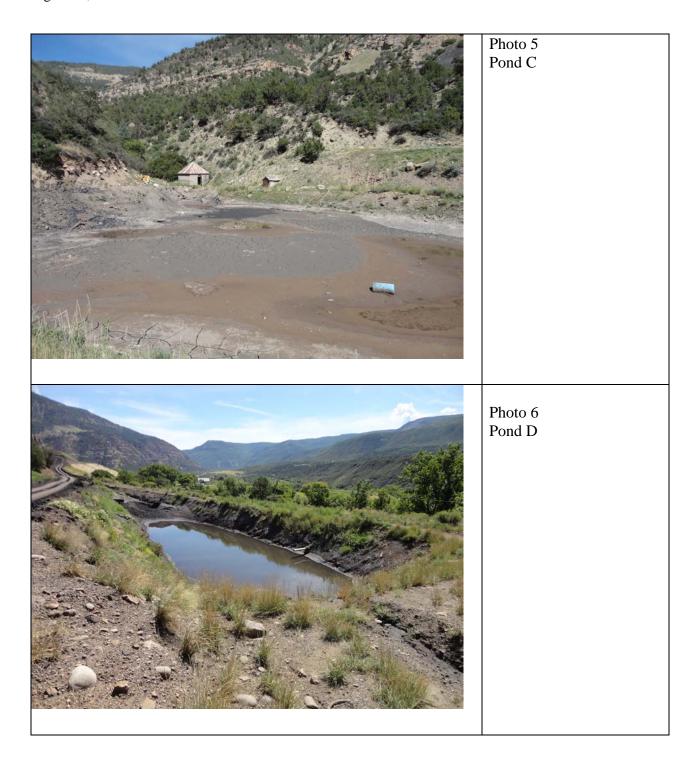




Photo 7 East side of Gob Pile #2



Photo 8 Remaining end-dumped material on east side of Gob Pile #2



Photo 9 Gob Pile #4 Ditch F-18



Photo 10 Cover material on Gob Pile #4





Photo 13 Gob Pile #2 Expansion Area, upper bench



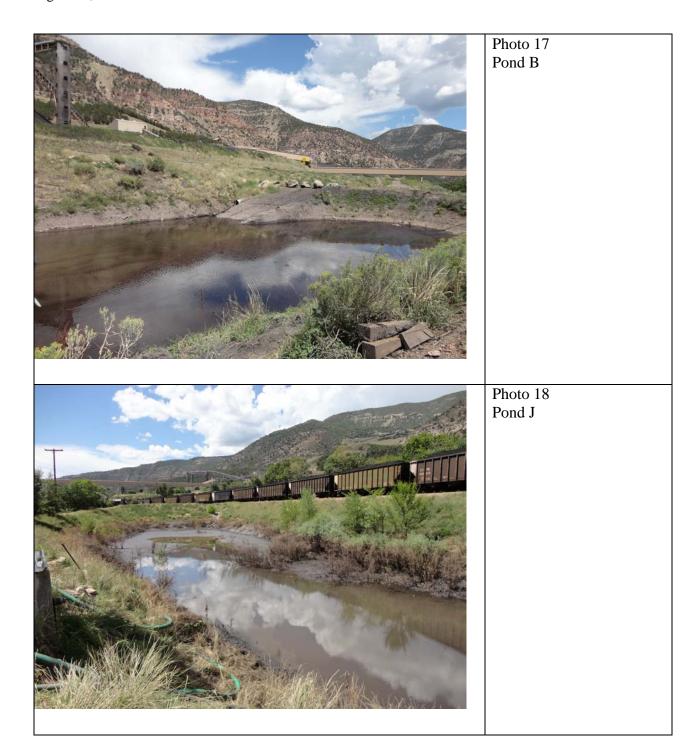
Photo 14
Pumphouse SAE, straw
wattles on west end were
washed out by stormwater



Photo 15 Reconstructed Ditch F4



Photo 16 Gob Pile #3 Fire Mountain Canal Seep



AVAILABILITY OF RECORDS

PERMIT RECORDS DRMS Permit		HYDROLOGIC RECORDS NPDES Permit	X Exp 8/31/2009 renewal app. Ext.
	Exp April 4, 2017		indef 8/31/2009
Permit Application w/Revisions	X B.Bear office	NPDES Records	June 2013
Findings Document	4/3/2013	Stormwater Management Plan	Oct 2004 Permit Exp 9/30/2011
Insurance Certificate	2/1/2014	SPCC Plan	Dec 2005
Bond Document	4 bonds, up to date	MSHA Pond Inspections	NA
Phased Bond Release	NA		NA
Documents/Findings		State Engineer's Pond Inspection	
Air Emission Permits	X	Quarterly Pond Inspections	X 2 nd Q 2013
County Special Use Permits	NA	Annual Hydrology Reports	X 2012
UG Mining Landowner Notification	Χ	 Ground Water Monitoring 	Х
Subsidence Monitoring Reports	June 2013 semiannual	Surface Water Monitoring	X
Subsidence Monitoring Data	June 2013 semiannual	Spring & Seep Monitoring	X
Rill & Gully Survey	NA	 Mine Water Discharge Monitoring 	AHR and NPDES
Vegetation Monitoring Data	NA	Mine Inflow Study	AHR
Specific Variance Approvals	NA	 Water Consumption Records 	May 2013
Annual Reclamation Reports	2012	Well Permits	NA
Midterm Review Documents	X 2009		
DRMS/OSM Inspection	Χ		
Reports/Enforcement Actions (3 Years)		BLASTING RECORDS	
Transfers/Succession of Operator	8/10/2009	Blasting Publication	NA
Temporary Cessation Notification	NA	Blasting Records (3 years)	NA
Reclamation Cost Estimate	PAP	ATFE Explosives Permit	June 1 2015 kept in front office
CERTIFICATIONS		Blasting Variances	NA
Pond Certifications Annual Certifications for Ponds	X binder	Pre-Blast Surveys	NA
Fill Certifications for Excess Spoil or Underground Development Waste		ADDITIONAL RECORDS (specify)	
Quarterly Inspections	2 nd Q 2013		
Compaction Testing	2 nd Q 2013		
Final Certification	NA		
Coal Processing Waste Banks	2 nd Q 2013		
Haul Road Certifications	Gob pile/main portal		
	11/97		
Access Road Certifications	NA		
COMMENTS:			